



## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Augustine M. K. Choi et al. Art Unit : 1616  
 Serial No. : 10/053,535 Examiner : F. Choi  
 Filed : January 15, 2002  
 Title : CARBON MONOXIDE AS A BIOMARKER AND THERAPEUTIC AGENT

Commissioner for Patents  
 Washington, D.C. 20231

REQUEST TO CORRECT INVENTORSHIP  
UNDER 37 C.F.R. §1.48(a)(1)

Applicants submit that inventorship of the above-referenced application was set forth in error. Specifically, Patty J. Lee was erroneously named as an inventor and Leo E. Otterbein's first and last names were inadvertently reversed. This error arose without any deceptive intention on the part of the inventors. Accordingly, applicants request that inventorship be changed from "AUGUSTINE M. K. CHOI, PATTY J. LEE, AND OTTERBEIN E. LEO" to "AUGUSTINE M. K. CHOI AND LEO E. OTTERBEIN."

Enclosed are the following, as required by 37 C.F.R. § 1.48(a):

- (1) a declaration executed by Patty J. Lee, a person being deleted as an inventor, which states that the error in inventorship occurred without deceptive intent on her part;
- (2) a declaration under C.F.R. § 1.63 executed by Augustine M. K. Choi and Leo E. Otterbein, the actual inventors;
- (3) written consent for the change in inventorship from Yale University and Johns Hopkins University, the two co-assignees of the above-referenced application; and
- (4) a check for \$130 for the processing fee set forth in 37 C.F.R. § 1.17(i).

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130.00 OP

## CERTIFICATE OF MAILING BY FIRST CLASS MAIL

I hereby certify under 37 CFR §1.8(a) that this correspondence is being deposited with the United States Postal Service as first class mail with sufficient postage on the date indicated below and is addressed to the Commissioner for Patents, Washington, D.C. 20231.

November 19, 2003

Date of Deposit

Signature

Jennifer L. Hess  
Jennifer L. Hess

Typed or Printed Name of Person Signing Certificate

Applicant : Augustine M. K. Choi et al.  
Serial No. : 10/053,535  
Filed : January 15, 2002  
Page : 2

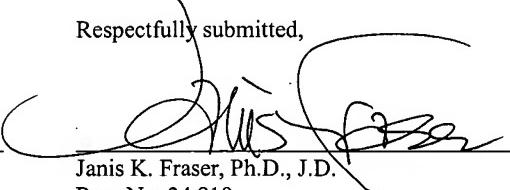
Attorney's Docket No.: 13681-003002

Please apply any other charges or credits to Deposit Account No. 06-1050, referencing  
Attorney Docket No. 13681-003002.

Respectfully submitted,

Date:

Nov. 19, 2003

  
Janis K. Fraser, Ph.D., J.D.  
Reg. No. 34,819

Fish & Richardson P.C.  
225 Franklin Street  
Boston, Massachusetts 02110-2804  
Telephone: (617) 542-5070  
Facsimile: (617) 542-8906  
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Attorney's Docket No.: 13681-003002

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Augustine M. K. Choi et al.

Art Unit : 1616

Serial No. : 10/053,535

Examiner : F. Choi

Filed : January 15, 2002

Title : CARBON MONOXIDE AS A BIOMARKER AND THERAPEUTIC AGENT

Commissioner for Patents  
Washington, D.C. 20231PETITION TO CORRECT INVENTORSHIP  
INVENTOR'S DECLARATION UNDER 37 C.F.R. §1.48(A)(2)

I, PATTY J. LEE, hereby declare:

1. That I am an original named inventor of the above-referenced patent application, and its parent application, U.S.S.N. 09/538,788.
2. That through error, without any deceptive intention on my part, the above-referenced application and its parent application were filed naming as inventors AUGUSTINE M. K. CHOI, PATTY J. LEE AND OTTERBEIN E. LEO, rather than AUGUSTINE M. K. CHOI AND LEO E. OTTERBEIN.

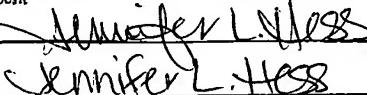
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Applicant : Augustine M. K. Choi et al.  
Serial No. : 10/053,535  
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Page : 2

Attorney's Docket No.: 13681-003002

3. That all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true and further that these statements are made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Date: 2/17/03

  
\_\_\_\_\_  
Patty J. Lee,

Fish & Richardson P.C.  
225 Franklin Street  
Boston, Massachusetts 02110-2804  
Telephone: (617) 542-5070  
Facsimile: (617) 542-8906

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Attorney's Docket No.: 13681-003002

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Augustine M. K. Choi et al. Art Unit : 1616  
Serial No. : 10/053,535 Examiner : F. Choi  
Filed : January 15, 2002  
Title : CARBON MONOXIDE AS A BIOMARKER AND THERAPEUTIC AGENT

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

DECLARATION OF DR. LEO OTTERBEIN UNDER 37 CFR 1.132

Sir

I, Leo E. Otterbein, hereby declare as follows:

(1) I am a co-inventor with Augustine M. K. Choi of the subject matter described and presently claimed in the above-identified application.

(2) I am co-author with Augustine M. K. Choi, Jeff T. Chapman, and Jack A. Elias on the abstract entitled "Exogenous Carbon Monoxide Attenuates Aeroallergen-Induced Eosinophilic Inflammation in Mice" that was published in the American Journal of Respiratory Critical Care Medicine, volume 159, at page A218 (1999).

(3) In the work reported in the above-referenced publication, Dr. Chapman worked under the direction of Dr. Choi and myself. Dr. Elias was Dr. Chapman's thesis advisor and is an expert in the field of the biology of asthma and in the mouse model described in the abstract. Dr. Chapman and Dr. Elias made no inventive contributions to the present claims.

**CERTIFICATE OF MAILING BY FIRST CLASS MAIL**

I hereby certify under 37 CFR §1.8(a) that this correspondence is being deposited with the United States Postal Service as first class mail with sufficient postage on the date indicated below and is addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

November 19, 2003

Date of Deposit

Rueter / Hess

Signature

Jennifer Glass

Typed or Printed Name of Person Signing Certificate

Applicant : Augustine M. K. Choi et al.  
Serial No. : 10/053,535  
Filed : January 15, 2002  
Page : 2 of 2

Attorney's Docket No.: 13681-003002

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

11/17/03  
Date

Le E Otterbein  
Leo E. Otterbein, Ph.D.

Attorney's Docket No.: 13681-003002

**COMBINED DECLARATION AND POWER OF ATTORNEY**

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled CARBON MONOXIDE AS A BIOMARKER AND THERAPEUTIC AGENT, the specification of which:

is attached hereto.

was filed on January 15, 2002 as Application Serial No. 10/053,535 and was amended on

was described and claimed in PCT International Application No. \_\_\_\_\_ filed on \_\_\_\_\_ and as amended under PCT Article 19 on \_\_\_\_\_

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose all information I know to be material to patentability in accordance with Title 37, Code of Federal Regulations, §1.56.

I hereby claim the benefit under Title 35, United States Code, §119(e)(1) of any United States provisional application(s) listed below:

U.S. Serial No.	Filing Date	Status
60/127,616	April 1, 1999	Expired

I hereby claim the benefit under Title 35, United States Code, §120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, §112, I acknowledge the duty to disclose all information I know to be material to patentability as defined in Title 37, Code of Federal Regulations, §1.56(a) which became available between the filing date of the prior application and the national or PCT international filing date of this application:

U.S. Serial No.	Filing Date	Status
09/538,788	March 30, 2000	Abandoned

I hereby appoint the following attorneys and/or agents to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith:

Janis K. Fraser, Ph.D., J.D., Reg. No. 34,819  
Timothy A. French, Reg. No. 30,175  
Jack Brennan, Reg. No. 47,443

John W. Freeman, Reg. No. 29,066  
J. Peter Fasse, Reg. No. 32,983  
Anita L. McElroy, Reg. No. 35,283

Address all telephone calls to JANIS K. FRASER, PH.D. at telephone number (617) 542-5070.  
Direct all correspondence to Customer Number:



26161

Attorney's Docket No.: 13681-003002

**Combined Declaration and Power of Attorney**  
Page 2 of 2 Pages

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patents issued thereon.

Full Name of Inventor: AUGUSTINE M. K. CHOI  
  
Inventor's Signature: \_\_\_\_\_ Date: 9/8/03  
Residence Address: Pittsburgh, PA  
Citizenship: United States  
Post Office Address: 43 Long Meadow Dr.  
Pittsburgh, PA 15238

Full Name of Inventor: LEO E. OTTERBEIN  
Inventor's Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
Residence Address: New Kensington, PA  
Citizenship: United States  
Post Office Address: 910 Normandy Dr.  
New Kensington, PA 15068

Attorney's Docket No.: 13681-003002

**Combined Declaration and Power of Attorney**  
Page 2 of 2 Pages

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patents issued thereon.

Full Name of Inventor: AUGUSTINE M. K. CHOI

Inventor's Signature:

Residence Address:

Pittsburgh, PA

Date:

Citizenship:

United States

Post Office Address:

43 Long Meadow Dr.  
Pittsburgh, PA 15238

Full Name of Inventor: LEO E. OTTERBEIN

Inventor's Signature:

Residence Address:

New Kensington, PA

Date:

8/15/03

Citizenship:

United States

Post Office Address:

910 Normandy Dr.  
New Kensington, PA 15068

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## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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Commissioner for Patents  
 Washington, D.C. 20231

WRITTEN CONSENT FOR CHANGE IN INVENTORSHIP UNDER 37 C.F.R. §1.48(A)(5)

Under 37 CFR §3.73(b), Yale University, a corporation having a place of business at Two Whitney Avenue, New Haven, CT 06511, and Johns Hopkins University, a corporation having a place of business at 111 Marketplace, Suite 906, Baltimore, MD 21202, certify that they are assignees of the above-referenced patent application by virtue of:

1. an assignment of the entire right, title and interest in a parent application, U.S.S.N. 09/538,788, from the inventors to Yale University, recorded in the United States Patent and Trademark Office on November 12, 2000, at Reel 011169, Frame 0792; and
2. A subsequent assignment of an undivided portion of the right, title, and interest in U.S.S.N. 09/538,788 and the above-referenced patent application from Yale University to Johns Hopkins University. A copy of the executed assignment is attached hereto.

The undersigned have reviewed all the documents in the chain of title of the above-identified application and to the best of undersigned knowledge and belief, title is in Yale University and Johns Hopkins University as joint owners. The undersigned, Dorothy K. Robinson, acting on behalf of Yale University, and R. Keith Baker, acting on behalf of Johns Hopkins University, hereby consent to changing inventorship of the above-referenced patent application from "AUGUSTINE M. K. CHOI, PATTY J. LEE, AND OTTERBEIN E. LEO" to "AUGUSTINE M. K. CHOI AND LEO E. OTTERBEIN."

## CERTIFICATE OF MAILING BY FIRST CLASS MAIL

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November 19, 2003  
 Date of Deposit

Jennifer L. Less  
 Signature

Jennifer L. Less  
 Typed or Printed Name of Person Signing Certificate

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We hereby declare that all statements made herein of our own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patents issued thereon.

Respectfully submitted,

Yale University

Date: \_\_\_\_\_

By: Dorothy K. Robinson  
Dorothy K. Robinson

Vice President and General Counsel

Applicant : Augustine M. K. Choi et al.  
Serial No. : 10/053,535  
Filed : January 15, 2002  
Page : 3

Attorney's Docket No.: 13681-003002

Date: 7/7/03

Johns Hopkins University

By: R. Keith Baker  
R. Keith Baker

Senior Director, Licensing and Technology  
Development

Fish & Richardson P.C.  
225 Franklin Street  
Boston, Massachusetts 02110-2804  
Telephone: (617) 542-5070  
Facsimile: (617) 542-8906

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## PATENT ASSIGNMENT

WHEREAS, Yale University, a Connecticut corporation, having a place of business at Two Whitney Avenue, New Haven, CT 06511 ("ASSIGNOR"), is the owner of the entire right, title and interest in and to certain United States patent applications as well as certain foreign patent applications corresponding thereto, said patent applications being identified in the attached Exhibit A and being hereinafter referred to as "PATENT APPLICATIONS."

WHEREAS, Johns Hopkins University, a Maryland corporation, having a place of business at 111 Marketplace, Suite 906, Baltimore, MD 21202 ("ASSIGNEE"), is desirous of obtaining certain ownership rights as a Joint Owner with ASSIGNOR in and to the PATENT APPLICATIONS.

NOW, THEREFORE, in consideration of good and valuable considerations paid by ASSIGNEE to ASSIGNOR, the receipt and sufficiency of which are hereby acknowledged, ASSIGNOR hereby sells, assigns and transfers to ASSIGNEE, as a Joint Owner with ASSIGNOR, and to its successors and assignees, an undivided portion of the right, title, and interest that ASSIGNOR owns throughout the world in the inventions and improvements that are the subject of the United States and foreign patent applications set forth in Exhibit A; this assignment including said applications, any and all United States and foreign patents, utility models, continuations, continuations-in-part, divisionals, reexaminations, reissues, and design registrations granted for any of said inventions or improvements, and the right to claim priority based on the filing date of said applications under the International Convention for the Protection of Industrial Property, the Patent Cooperation Treaty, the European Patent Convention, and all other treaties of like purposes.

ASSIGNOR agrees for itself and its successors, legal representatives and assigns, without further compensation, to perform such lawful acts and to sign such further applications, assignments, Preliminary Statements and other lawful documents as the ASSIGNEE may reasonably request to effectuate fully this assignment.

IN TESTIMONY WHEREOF, ASSIGNOR and ASSIGNEE have caused this  
Assignment to be executed by their respective duly authorized officer.

(ASSIGNOR)

Yale University

By: Dorothy K. Robinson

Dorothy K. Robinson

Vice President and General Counsel

Date: 1/14/03

ACKNOWLEDGEMENT

ASSIGNOR

State of Connecticut:  
: ss

County of New Haven:

On this 14th day of January, 2003, before me personally came Dorothy K. Robinson, to me known, who, being duly sworn, deposes and says that she is the Vice President and General Counsel of Yale University (ASSIGNOR), the corporation described in and which executed the foregoing instrument.

Jona Shaw E. Clune

Notary Public

My Commission Expires

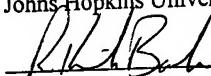
Commissioner of the Superior Court

[Notary's Seal]

(ASSIGNEE)

Johns Hopkins University

By:



R. Keith Baker

Senior Director, Licensing and Technology  
Development

Date:



#### ACKNOWLEDGEMENT

ASSIGNEE

State of Maryland :  
: ss

County of Baltimore:

On this 30 day of April, 2003, before me personally came R. Keith Baker, to me known, who, being duly sworn, deposes and says that he is the Senior Director, Licensing and Technology Development, of Johns Hopkins University (ASSIGNEE), the corporation described in and which executed the foregoing instrument.



Notary Public  
My Commission Expires



[Notary's Seal]

## SCHEDULE A

### U.S. Patent Applications

<u>Appl. No.</u>	<u>Filing Date</u>	<u>Status</u>
60/127,616	April 1, 1999	Expired
09/538,788	March 3, 2000	Abandoned in favor of 10/053,535
10/053,535	January 15, 2002	Pending

### Foreign Patent Applications

<u>Country</u>	<u>Appl. No.</u>	<u>Filing Date</u>	<u>Status</u>
Patent Cooperation Treaty	US02/14836	May 9, 2002	Pending